

THE MILBANK MEMORIAL FUND  
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BERTRAND BROWN  
EDITOR

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## CAMPAIGN CALENDAR OF A PUBLIC HEALTH ORGANIZATION

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## SOCIAL SERVICE AND RELIEF IN TUBERCULOUS FAMILIES

by BAILEY B. BURRITT<sup>1</sup>



**W**HEREVER intensive work in the development of the control of tuberculosis has been undertaken, it has become increasingly clear that not only health departments and health agencies are concerned, but also relief and social service facilities of the community. This became increasingly apparent in the development of the Cattaraugus County and Syracuse health programs. The health officials were aware of the fact that tuberculosis control was dependent on development of the relief and social service program affecting tuberculous families as well as on improvement in the quality and quantity of health work done through clinic, nurse, and sanatorium.

In recognition of this fact, the Milbank Memorial Fund undertook the financial support of an inquiry into the adequacy of relief and social service for tuberculous families in Syracuse. The request for this study originated in Syracuse with the Onondaga Health Association, and was supported strongly by the health commissioner and by the local social agencies, as well as by the New York State Charities Aid Association which had taken a leading part in the planning and development of the Syracuse Health Demonstration. The study was made by the New York Association for Improving the Condition of the Poor which over more than a decade has been developing a tuberculosis relief program in the City of New York. A preliminary report of the survey has been published by the Milbank Memorial Fund under the title, "Relief of Tuberculous Families." A summary is pre-

<sup>1</sup>Mr. Burritt is general director of the New York Association for Improving the Condition of the Poor.

sented here in the belief that the picture afforded of relief facilities provided for dealing with tuberculosis in Syracuse is not far different from that which might be found in almost any community. It is the author's belief that the data throw light on the necessity for more adequate attention to the problem of social service and relief in tuberculosis programs in all communities.

### *Tuberculosis Relief in Syracuse*

As in most communities, relief in Syracuse is given by several organizations, both public and private. The Department of Charities, however, bears the brunt of the relief program, and provides relief in homes, relief in hospitals, and child care outside of the home. The Board of Child Welfare gives allowances to widows' families, and has authority to grant allowances to women with dependent children whose husbands have been incapacitated by tuberculosis. This latter authority, however, is not utilized. The Associated Charities, Catholic Welfare, Red Cross, United Jewish Charities, and Salvation Army all participate to some degree in the relief program of Syracuse.

It is estimated that the City of Syracuse spends annually about \$332,000 in its health and relief services for tuberculosis. About 85 per cent of this is expended in health services and about 15 per cent in relief. The health services include hospitalization of tuberculosis as the largest item, and, in addition, preventorium costs and the cost of the tuberculosis clinics, of nursing supervision, and of open-air classes. Approximately 85 per cent of the total health service bill is expended by the municipality, 3 per cent by the State, 6 per cent by the Federal Government, and 6 per cent by private organizations. The tuberculosis relief bill of approximately \$48,000 is 8.8 per cent of the total relief bill of Syra-

cuse which is \$544,000. Eighty-nine per cent of the relief expended in tuberculosis comes from public funds, and 11 per cent from private funds. Out of the \$48,000 expended for tuberculosis relief, \$22,000 is expended for relief in homes; \$14,500 is expended for hospital care of the sick poor in local hospitals, and the balance is expended for the care of children from tuberculous families in institutions or in boarding homes. Sanatorium care for patients in the families given relief during the year studied cost \$49,000, or more than twice the amount expended for material aid of such families in their homes. All health services for tuberculous families cost more than twelve times the amount expended for material relief in the homes of such families.

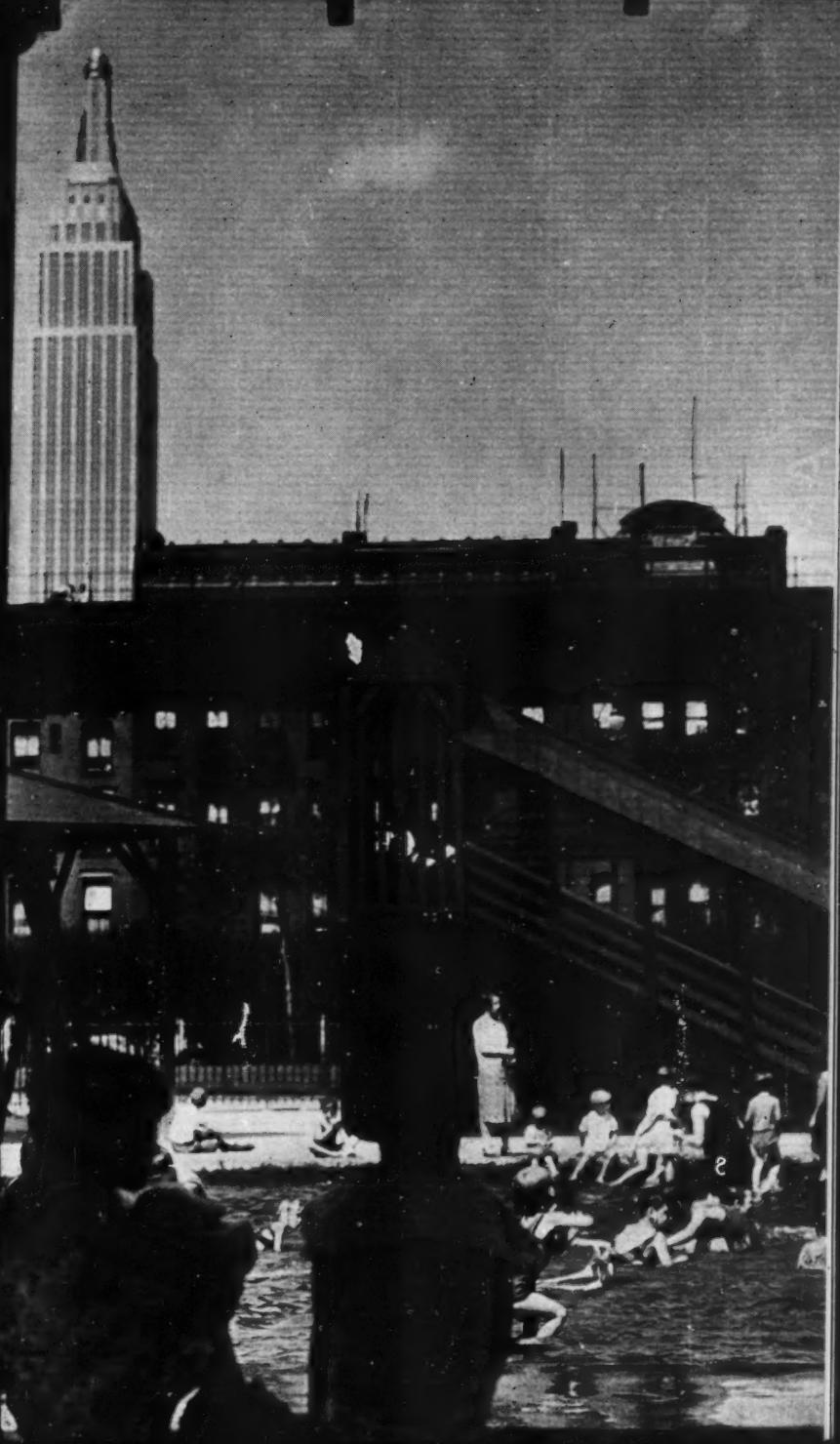
#### *Method of the Syracuse Study*

This study includes 1,288 tuberculous families known to the Health Department on May 1, 1929, when the inquiry was undertaken. It was impossible to make an intensive study of the social service and economic situation of all of these families. A sampling method, therefore, had to be arranged. General information about each family was obtained, enough to remove from the total number those which could clearly be classed as economically secure. In this way, 296 families were eliminated. The remaining 992 families were divided into two groups—those who received relief during the year included in the study, and those who had availed themselves of the free health or social services of the community, or were regarded as possibly requiring such care or relief. There were 211 families who had received relief, and 781 who were placed in the second group. A sample number of families was taken from each of these groups which we will call the "relief group" and the "no-relief group." Thirty-four families were selected at random from

the relief group and thirty-six families from the no-relief group. The homes of these families were visited and their economic situations and social service needs carefully studied. When the data were assembled, six of the thirty-four relief families were found to have received relief a short time preceding the year of the study, but not actually during the year of the study. These six families are therefore omitted in this discussion.

#### *Status of the Families Studied*

Important factors in the sixty-four family situations discussed here proved to be the composition or make-up of the family groups, chiefly as to age and size, its economic status, and the position of the tuberculous member within the family. The general composition of the families was similar in the relief and no-relief groups; both included individuals living alone, no-child families, families with one to seven children, and broken families with either husband or wife absent. Death from tuberculosis was found to be responsible for 50 per cent of the broken families in the relief group as compared with 31 per cent in the no-relief group. The proportion of families broken because of divorce, separation, or desertion was twice as high in the no-relief families as in the relief families. One-quarter of the no-relief families, as compared with 7 per cent of the families in the relief group, had three or four adult members twenty years of age or older. Eleven per cent of the no-relief families, as compared with one-third of the relief families, had five or more children under twenty years of age. The proportion of families with no children under twenty was nearly twice as great in the no-relief group as in the relief group, or 39 per cent as compared with 21 per cent. There were one or more children under five in 43 per cent of the relief families as compared





with 25 per cent of the no-relief families. In the no-relief families, there was an average of 1.8 per cent earners, while in the relief families, this average was 1.4 per cent. Put in another way, there were 3.7 persons to be supported per wage earner in the relief families, as compared with 2.7 in the no-relief families. The scale of earnings was lower in the relief families; 54 per cent of the wage earners in the relief families earned less than \$20 a week as compared with 36 per cent in the no-relief families.

### *Relief Families*

Thirteen wage earners in the relief group who contributed to the family income during the year were classed as having active cases of tuberculosis, nine of them male heads of families and four of them wives. This fact is significant in our consideration of the inadequacy of social service and relief. Only 5 per cent of the tuberculosis cases in the relief families and 7 per cent in the no-relief families refused sanatorium care; 50 per cent of the cases in the relief families and 44 per cent of those in the no-relief families had received sanatorium care. It is worth noting, however, that two wives and one male head in the twenty-eight relief families left the sanatorium without permission because their families were not being cared for. No similar reasons were found in the no-relief group.

The twenty-eight relief families received either hospital relief, or relief in the home, or both. There were seven who received hospital relief only. In four of these seven, the family earnings were approximately 55 to 65 per cent of the amount required to maintain a standard of living adequate for their needs. In two families, these earnings equaled 82 and 88, and in one family 95 per cent of the necessary amount. Housing for four of these seven families was considered

definitely unsatisfactory; questionable for one. There was obvious need for health instruction and social service in three of the seven families. Individuals with active tuberculosis were continuing as wage earners in these families, and in four instances wives with children under four years of age were working outside the home.

There were thirteen of the relief families which received only relief in their homes. The family earnings in four of these equaled only 24 to 40 per cent of the requisite budget. After all the relief given to these families was added, they were still from 14 to 29 per cent below the standard budget. In seven other instances, family earnings were from 47 to 77 per cent of the budget standard, and when the relief of all was added, their budgets were found to be from 10 to 37 per cent below standard. In one of the thirteen families, the earnings were adequate for needs exclusive of medical care. In three of the thirteen families, housing was definitely unsatisfactory; in three it was medium; and in the remaining seven it was considered reasonably satisfactory. Several types of problems confronted in the relief of these tuberculous families are illustrated by the conditions found: need of adjustment in the family situation so that the tuberculous individual could have sanatorium care was found in two families; inability of the wife to support the family adequately during the absence or illness of the head of the family who has tuberculosis, three families; difficulty of finding work suitable for wage earners whose tuberculosis is arrested, two families; health problem and illness other than tuberculosis in the family, two families; irregularity of employment of wage earners, two families; need of health instruction and assistance in family planning, two families; definite lack of cooperation in regard to medical care, two families.

The third group of the twenty-eight families, namely,

those receiving both hospital and home relief included six families. Relief in all of these families was inadequate. In one of these, the male head with advanced tuberculosis had left the county sanatorium because his family had not been cared for, and he was working part of the time. In three of these six families, there was an important social problem in addition to that of tuberculosis, and in one, the problem arising from tuberculosis was acute. A number of different agencies were assisting in all but one of the six families. In one instance, the family received help from four different agencies.

#### *Summary of Syracuse Study*

Without attempting to go further into detail with regard to the Syracuse data, it may be summarized as follows:

In spite of the fact that most of the 781 families in the no-relief group were able to maintain an adequate standard of living, the data tend to indicate that there may be at least eighty families in the group which were definitely in need of relief. Financial assistance was adequate for only eight of the twenty-eight relief families, and we may therefore assume that relief was insufficient in at least 150 of the 211 families in the group which received some relief. Such relief as was given was found to be on an emergent basis, and without a definite family plan. Much of it was in the form of grocery orders to be taken by members of the tuberculous families from a grocery store operated in the basement of the Department of Charities. There was definite necessity for social service in a large number of families in both the relief and no-relief groups. It included such problems as: adjustment in the family situation so that the tuberculous family head could have sanatorium care; adjustments enabling mothers to give proper care to their young children in their own homes instead of working too much out of the home; modifying

the employment of wage earners with arrested tuberculosis; dealing with distinct mental hygiene problems (which were present in five relief families, and in three no-relief families); intensive health supervision for the protection of young children in the family (this was specifically noted in seven no-relief families); securing other living accommodations or modifying the use of those occupied; securing examination of many contact children not already examined; assistance in coping with problems of social maladjustment; planning for maximum utilization of such income as is available to the family; and other definite social factors complicating the problem of tuberculosis control.

#### *To What Do These Facts Point?*

What is the significance of this data for other communities? The full preliminary report should be examined as further background and more detailed reports will be published subsequently. This summary, however, enables us to enumerate some of the ways in which the inadequacy of social service and relief expresses itself in most communities:

1. The Syracuse data reveal that the amount of relief available for tuberculous families is inadequate, many families not having sufficient budget when relief is added to their own income to make possible a livable standard of living, and that an additional group of families which should have relief get no relief at all. No matter how much is spent on medical diagnosis, medical and nursing supervision, and medical treatment or sanatorium and hospital care, tuberculosis cannot be arrested and controlled on a family budget inadequate for the simplest requirements of food, clothing, housing, and the necessities of life.

2. Relief for the most part is temporary and of an emergent character, and is not planned from the point of view of the



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constructive effect, either in the treatment of the tuberculosis cases in the family, or in the control and prevention of tuberculosis in those not already tuberculous. Tuberculosis is a long continued difficulty, and any relief program that does not recognize this and lay out a long term plan for dealing with it—a plan agreed to by both health and relief authorities—is not effective for its purpose. To control tuberculosis you must aim to secure a reasonably stable family. Emergent relief, however necessary, may not contribute much to a permanently stable family life.

3. Tuberculosis relief is stupidly unrelated to the realities of life. In Syracuse and in most cities of New York State, and in many other places, tuberculosis relief is given chiefly in the form of grocery orders, and in amounts not carefully related to the family needs. Relief in general is too frequently given in kind. It proceeds altogether too much upon the theory that the family must be treated not only as a pauper group, but its members as incompetent, unable to buy for themselves. The principle upon which the Association for Improving the Condition of the Poor proceeds in giving relief is that the more nearly the tuberculous family is treated like an ordinary family, and the more nearly it is aided to arrange and manage its affairs to approximate the affairs of other families in the community, the more likely is such relief to accomplish its purpose. After wide observation, we have found that, provided there be adequate supervision, the family in the average community can get more out of the dollar expended for food than we can get for it. If the family's food is bought for it, Mary Jane's shoes bought for her, the family's gas and other bills paid, and purchases made which normal families have to look after, considerable has been accomplished along the path of creating permanent dependents. This is not the road to independent, self-respecting

family units educated to manage their own affairs, including ultimately suitable preventive and remedial care of tuberculosis itself. Relief, in addition to being adequate in quantity, needs to be adapted to the vital living processes of human family life.

4. The giving of relief for tuberculous families is for the most part in the hands of personnel not adequate in number and for the most part untrained, and this is further aggravated by the fact that the supervision of such relief is both inadequate and untrained, or inadequately trained. This stands out conspicuously in Syracuse, and would in most communities. Much as we appreciate the necessity for the expenditure of additional funds for material relief, we must appreciate at the same time that unless this were preceded or at least accompanied by much more adequate provision for additional personnel, for personnel specially trained for the task, and for the provision of adequate supervision of such personnel, such expenditures for material relief would in large part be ineffective. One might add that because of the difficulties of securing trained personnel and trained supervision, relief handled by small local administrative units, such as towns, is bound to be unsatisfactory. Administrative units large enough to be economically practicable are as necessary in the development of suitable relief and social service problems as are such units in the development of our health programs.

5. Social service stands out as a conspicuous need in an appreciable percentage of all tuberculous families, somewhat irrespective of whether they need material relief or not. Tuberculosis is seldom the single factor interfering with normal family life. It is, on the other hand, in a very large percentage of the cases inextricably intertwined with other factors that are undermining family stability. Unless this be

recognized, any attempted vitalizing of the relief situation will be futile.

6. The handling of relief and social service is not in most communities well integrated and coordinated either, between voluntary relief and social service agencies themselves, or between these voluntary groups and the official agency or agencies. Where there is more than one official agency dealing with the problem there is all too frequently little coordination between these. A unified community program for handling tuberculosis relief and social service—a program in which the function of each agency is clearly defined and agreed to—is a fundamental requirement that is now lacking in most communities. Several organizations giving relief to the same tuberculous family without any evidence of any one of them having a long range constructive plan came out clearly in Syracuse, and would come out clearly in a study of similar communities. In spite of the fact that this is evident, it is not sufficiently appreciated by the general public, or by the professional group. At any rate, little has been done in most communities to overcome this obstacle.

7. Not only is there lack of coordination among the relief and social service agencies in most communities dealing with tuberculosis relief, there is also a lack of any effective teaming up between the health department, the private physician, and the social service agency. If the health department, or the private physician, refers the case to a social or relief agency, that in most communities ends it so far as the health department is concerned. Needless to say, it is only the starting point in any effective accomplishment for the family. Health departments can ill afford to take refuge permanently from the failure of securing dynamic results in the treatment of tuberculous families needing relief by referring them to an agency, which presumably is organized to secure

such results but which actually does not always secure them.

8. Finally, both the private physician and the clinic physician treating cases of tuberculosis are on the whole, with refreshing exceptions, not sufficiently alive to the fact that both tuberculosis treatment and tuberculosis prevention require relief and social service. Is it not, after all, part of the doctor's function if he is to be successful in treating the diseased patient and in controlling the development of tuberculosis in families to include necessary social service and relief in the family situation as a part of his responsibility? Just as the physician orders that a patient should be put to bed, that his sputum should be cared for and examined from time to time, that his temperature should be observed, that necessary X-rays should be made available from time to time as required, that certain medicine be made available, that the patient go into a hospital or sanatorium—so should he not require as a part of his treatment that the man or woman cease work if he or she should not work, that his children who are, and have been exposed, should have adequate food, adequate housing, adequate clothing, and that the essentials that make healthy living should be made available? In short, he is the master workman, and is in a position to insist that the necessary tools be made available to complete the task which he undertakes. This may look to the physician like a large order, but the records show failure in his treatment unless these are available. More than any other individual in the community, the doctor is in a strategic position to assist in educating the whole community to demand that adequate social service and relief be available. When he accepts the point of view that these resources must be available if he is to carry out his responsibility we shall be much nearer, community by community, to carrying out the social service requirements of the situation.

### Conclusion

Though sketchily, enough has perhaps been presented here to indicate that social service and relief in tuberculosis is on the whole totally inadequate to the requirements of the situation. Most communities have developed their medical facilities for dealing with tuberculosis more adequately than their social facilities. Where medical facilities have been most adequately developed, as in Syracuse, social services are conspicuously inadequate. It is increasingly clear not only in Syracuse, but in Cattaraugus County and in other localities where this problem has been considered that there is a limit to productive expenditure for medical services for the control of tuberculosis without the development simultaneously, step by step, of social services for the treatment and prevention of tuberculosis.

This would seem to the author to indicate an inescapable responsibility for the National Tuberculosis Association and state and local associations to include in their programs more specifically and definitely the function of promoting adequate social service and relief facilities for dealing with tuberculosis. These agencies have wisely insisted that their function is not the giving of relief. It is equally true that their function is not the operation of medical services. Clearly, however, their function should include the promotion of both. On the whole, it would seem clear that the obligation of promotion of social services or adequate home supervision of tuberculous families has not been seriously accepted by these associations. They are in a stronger strategic position to insist on the development of such services than are state and local health departments. The latter, however, cannot escape responsibility, because if social service facilities are not made available community by community, they cannot expect full success in their programs for the prevention and control of

tuberculosis. More conscious and persistent effort might well be made, therefore, by state and local health departments in league with other state and local authorities to increase the social service and relief facilities of the community, step by step, as the sanatorium, clinical, and other health facilities are developed. Similarly, the promotion of the necessity of such facilities would seem to be an inescapable part of the responsibility of the private practicing physician who undertakes to treat tuberculosis.

## CAMPAIGN CALENDAR OF A PUBLIC HEALTH ORGANIZATION

by SAVEL ZIMAND<sup>1</sup>



**T**HE Bellevue-Yorkville Health Demonstration in the City of New York has carried on since its inception, and is carrying on now, general campaigns to popularize knowledge regarding such subjects in the general health field as child hygiene, diphtheria, venereal diseases, tuberculosis, periodic health examinations, and safety.

By considering the results of these campaigns in a metropolitan area of 150,000 population (which extends from 14th to 64th Streets on the east side of Manhattan with Fourth Avenue as a western boundary below 42nd Street and Sixth Avenue above), certain light may be thrown on and certain general conclusions drawn, regarding the value of similar projects in other parts of the country. This article deals mainly with the public propaganda campaigns; individual health education carried on by physicians, nurses, and teachers is considered only insofar as it was a part of the general publicity campaign.

The most intensive drives have been carried on in the fields of diphtheria, venereal disease, tuberculosis, and periodic health examination. While an appropriate month was selected for beginning the campaigns they have generally been continued for longer periods and have often stretched over several months. It is very important to select the proper month for a campaign on a particular subject and also, if possible, to arrange a time when other organizations are not planning campaigns which may compete for popular interest.

A campaign calendar must vary somewhat from year to

<sup>1</sup>Mr. Zimand is the administrative director of the Bellevue-Yorkville Health Demonstration in the City of New York.

year, just as the subjects vary, for certain work can be stressed more effectively during certain seasons of the year. Intensive work on diphtheria immunization yields better results after the winter months when the epidemic of colds has somewhat abated; early diagnosis of tuberculosis during April, to correspond with similar efforts of the national and city organizations; child hygiene in general, nutrition, or dental hygiene during May to fit in with Child Health Day, or during the summer months; periodic health examinations in June or January, keeping in mind that it is more effective to remind people of this subject before vacation time or at the beginning of the new year; safety for children in July and August when schools are closed and the children are more apt to be on the streets; health examination of children in the latter part of August and in September, before they enter school. Campaigns along all these lines have not been carried on in the Bellevue-Yorkville district on an intensive basis every year, although once a subject has been stressed on a large scale the educational work continues.

Of course methods have differed somewhat with each campaign. But in all cooperation was sought and secured from the physicians of the district, from the medical societies, and the local health and social agencies.

In the Bellevue-Yorkville district in the course of the last two years alone (1929-1930) over one million pieces of literature and about 30,000 posters were distributed, mainly to residents, but also to doctors and dentists, and to schools, welfare and health agencies, stores, industrial plants, banks, motion picture theaters, clubs, and restaurants. For reaching the people in their homes, house-to-house delivery by a commercial firm and the mails were generally used as the most effective methods of distribution. Although much of the material was prepared and printed by the demonstration,

sometimes in cooperation with other agencies, a large amount was supplied by other health and welfare organizations.

The *Health News*, a popular picture tabloid newspaper, was employed by the demonstration during various campaigns in 1929. Six issues were printed; four in editions of 40,000 each, one of 50,000, and one of 10,000 copies. The first issue was devoted to diphtheria, and the April, May, and June issues were given over respectively to early diagnosis of tuberculosis; nutrition, teeth, and other health problems of school children; and periodic health examinations, with special messages on this subject from Governor Roosevelt and prominent religious leaders. In November the services at the Health Center were described, and the December issue dealt mainly with colds and children's diseases.

Of course during all the campaigns we tried to secure the cooperation of the important metropolitan newspapers and especially of the tabloids, which are read by a great many of the tenement house dwellers of the district. While it was possible to secure stories on such subjects as diphtheria, tuberculosis, and periodic health examination, it was most difficult to have any mention of venereal disease. But in the Bellevue-Yorkville venereal disease campaign our various efforts resulted in the breaking down of this taboo and the New York papers, as well as papers throughout the country, carried news on this campaign.

In campaigns like those on tuberculosis and venereal disease, special lectures were arranged for physicians, nurses, teachers, and social workers, in order that these individuals in turn might use their influence with their patients, clients, and pupils—the general public. During others, special courses were scheduled for physicians. The public forum was utilized in all, but in the venereal disease campaign separate meetings were arranged for men and women with talks of a general

nature for mixed audiences. The radio was used repeatedly. The cardboard poster was found valuable as an advertisement to be displayed in local stores of the neighborhood, but according to our experience the paper poster is of no use for this purpose.

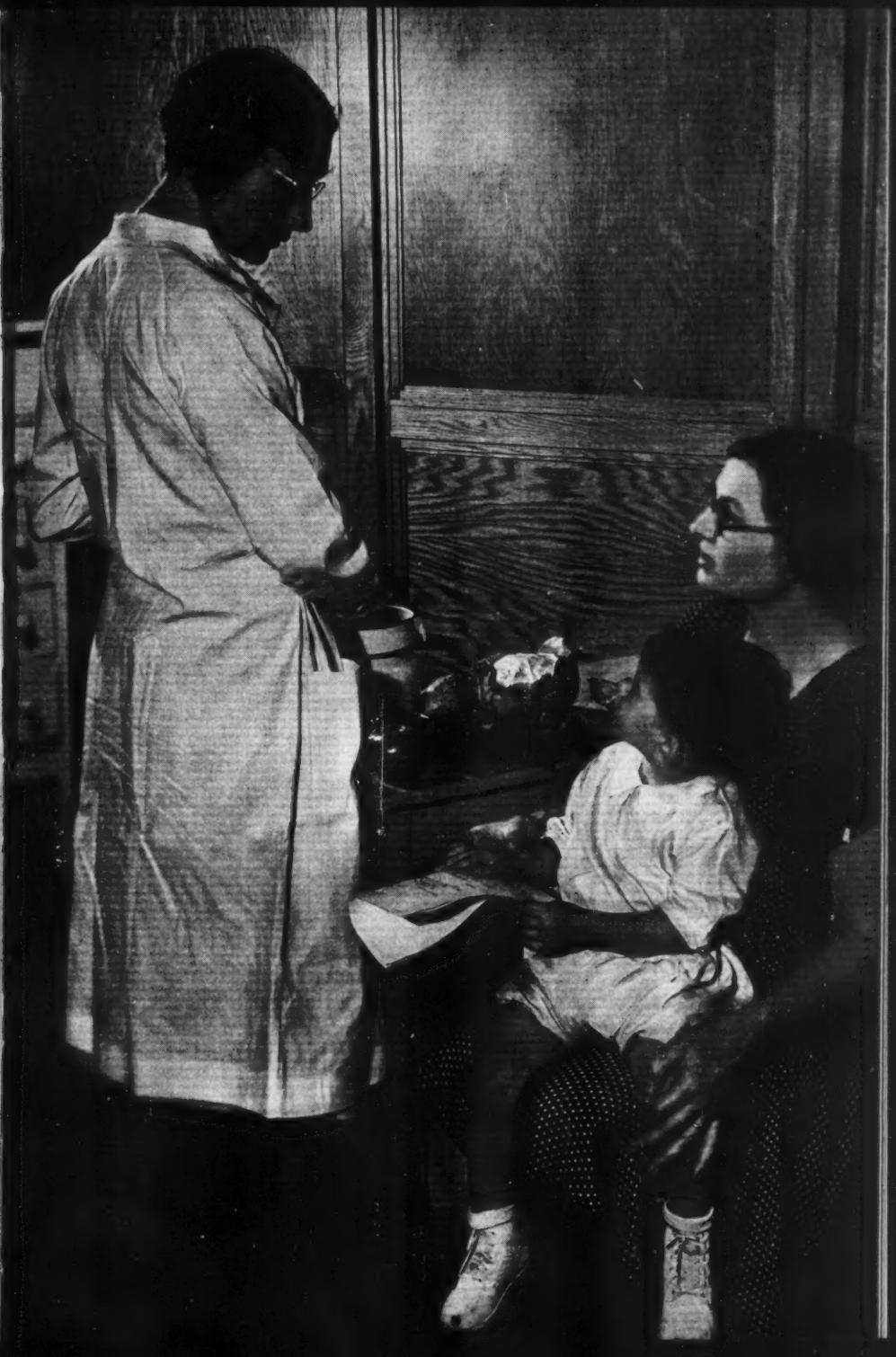
Special exhibitions were prepared during some campaigns, as were window displays for drug stores and empty stores during others. Arrangements were made with the motion picture houses of the district to show certain short silent reels on the subject of the campaign, but films other than "talkies" would be impractical now as most of the theaters no longer show silent pictures.

#### *Diphtheria Immunization Campaigns*

An illustration of popular health education work in which results can actually be measured is the diphtheria drive. Campaigns for immunization against diphtheria have been conducted by the demonstration since its organization, but especially intensive work was begun in March, 1929, and carried over into 1930 and 1931.

It is gratifying to note that there were no deaths from diphtheria in the district from August, 1929, until the first of March, 1931. There were 9 deaths during the first seven months of 1929, and 28 in the year 1928. In 1922, when local records for the district were first available, there were 50 deaths. There was a corresponding decrease in the number of cases reported from addresses in Bellevue-Yorkville—94 in 1930 as against 267 in 1929 (a decrease of 65 per cent) and 405 in 1928.

The campaign was conducted with the help of volunteer health and welfare agencies and benefited greatly from the very effective city-wide health education work on this subject. The most intensive effort was made during the two





years, 1929 and 1930. About 160,000 leaflets and 15,000 posters were distributed during this period, and each issue of the tabloid, a total of 220,000 copies, carried pictures and appeals on this subject. A diphtheria film was shown in various motion picture houses to a total attendance of 14,000. The ministers of the district cooperated by printing the campaign message in their church bulletins or posting it.

Questionnaires were distributed to 20,000 school children during April, 1929, and returned to the demonstration a few days later, where the replies were classified. To parents who refused to have their children immunized, the Department of Health sent letters suggesting that they consider the matter further, in consultation with their family doctor or with doctors in attendance at one of the public clinics. To those who were willing to have their children immunized, letters were sent reminding them of their consent and asking them to take the children to their family doctor or to the nearest baby health station. All those parents whose children were not immunized were visited by the Department of Health nurses, and as a result a great many mothers who would not otherwise have done so brought their children to the baby health stations or took them to their doctors. From March, 1929, to the end of December, 2,632 such visits were made by the Health Department field nurses.

In 1930, an experienced nurse was engaged to visit all the families in the most congested blocks of the district. This nurse visited 253 families, of whom only nine had never heard of toxin-antitoxin. In these families were 502 children between nine months and ten years of age of whom 283 had had the three inoculations and 219 had not.

Many reasons were given by the parents who had not had their children immunized. The most frequent was disbelief in the efficacy of immunization and next came fear of subse-

quent ill effects. Some said that their private physicians did not think it was necessary, and others that it would be time enough to consider immunization when the children went to school. Some mothers were working and could not take the children to a clinic; others said it was too hot; others were not willing to go to a free clinic and could not afford to go to a private physician because their husbands were out of work. In many cases, especially among the Italians, the mothers were willing to have the children immunized, but their husbands would not consent. A number of fathers would not allow it because of their own experience with injections in the army, or because of articles against immunization they had read in certain newspapers. But nearly all the families knew "Thirty-eighth Street," as they called the Health Center, and many of the women got out with much pride their pictures which had been in the Bellevue-Yorkville *Health News* some time ago.

#### *The Venereal Disease Campaign*

One of the most interesting and intensive campaigns, which attracted nation-wide attention, was on venereal disease, carried on in the Bellevue-Yorkville district during October, November, and December, 1930. It was undertaken by the demonstration in cooperation with the Department of Health, the New York Tuberculosis and Health Association, and the American Social Hygiene Association. The endorsement of the Medical Society of the County of New York was secured, and the support of physicians, nurses, social workers, religious leaders, and heads of industries, as well as of clinics and hospitals, was enlisted.

The purpose of the campaign was to familiarize the adult population of the district with the essential facts concerning syphilis and gonorrhea, and to induce as many infected per-

sons as possible to seek medical advice and treatment. Incidentally we were interested in determining whether methods of health education used in other preventable diseases could be used in campaigns against venereal diseases.

In planning this campaign, the demonstration found that it was touching unploughed ground. It discovered, for instance, that among the available literature there was nothing suitable to send to every family of the district, nor was there experience on hand which might indicate the reaction of people towards public meetings on venereal disease. One of the first jobs was to prepare a set of pamphlets in simple and direct language dealing strictly with scientific information on syphilis and gonorrhea, and not with problems of social hygiene in general.

The literature prepared was of two types—that for widespread distribution written in general terms, and that in which symptoms were described in greater detail and which was sent upon request only. In connection with this educational work 100,000 pamphlets were sent out, 15,000 letters on syphilis and gonorrhea were mailed to the families of the district, 70,000 post cards and letters were sent in connection with the various meetings, and 6,000 window display posters, 48,000 fliers announcing meetings, 1,100 health flashes for bulletin boards, and 1,100 washroom posters were distributed.

The letter and leaflet going to 15,000 families resulted in requests to the demonstration for over 2,000 pamphlets giving more detailed information on syphilis and gonorrhea. Not only was there not a single complaint from those who received this literature but many sent letters of thanks and requests that this educational work be continued.

During November an exhibit was installed in a temporarily vacant shop on one of the business thoroughfares, where the ravages of syphilis and gonorrhea were shown by means of

posters, slides, wax models, and statistical charts. No medical questions involving diagnosis or treatment were dealt with, but qualified persons were in attendance to answer questions concerning private and public treatment facilities in the district.

Altogether forty-five meetings were held at the Health Center, and at other places, such as settlement houses and industrial plants, and four radio talks were given. All the meetings attracted large and keenly interested audiences. Movies were shown at most of the popular meetings except those held in industrial establishments. A special course of lectures for physicians was arranged and other meetings were held for nurses, social workers, ministers, and teachers.

Of special interest is the fact that the press was actually induced to carry publicity on the subject, a circumstance which gives hope for similar work in the future. The results were highly satisfactory. It was definitely demonstrated that there are certain methods of health instruction which are as applicable to syphilis and gonorrhea as they are to other preventable diseases. The requests which continue to come in from various parts of the country testify to the interest in this work and the great need for it. A similar campaign is now in preparation in another district of New York City, and a movement is on foot to have social hygiene associations set aside a month each year for carrying on this type of popular education.

#### *Other Health Educational Campaigns*

Our first periodic health examination campaign was started in 1927, but the most intensive work was done in January, February, and June, 1929. We have no way of ascertaining how many people, as a result of this stimulus, have gone to private physicians for a health examination, but

one known tangible outcome during the 1929 campaign has been the examination of over 3,000 school children. This was the result of the distribution of 30,000 cards to school children urging an examination, and containing the phrase, "If you cannot consult your family doctor, go to a clinic." An emergency service was maintained in the Bellevue-Yorkville Health Center from February 20 to May 21, 1929, and 1,171 children were examined—a larger number were sent to other clinics and to private doctors. Records of the examination were transferred to the children's school records for appropriate attention.

A graduate course for physicians of the district in the technique of making a general periodic examination was given at the Health Center as a part of this campaign. Twenty-six physicians completed the course which included 39 sessions and at which 281 persons were examined.

The total literature distributed or mailed amounted to over 300,000 pieces and about 5,000 posters were displayed. Physicians were supplied with examination forms issued by the American Medical Association, white record cards and blue application cards, and with literature for distribution to their patients.

The special projects in the tuberculosis program carried on by the demonstration included a study of the examination of 1,000 school children of 13 and 14 years of age and the organization of a consultation chest service for the use of private physicians, both suggested by Commissioner Wynne.

The first project was a pioneer study in its field. It was made to contribute still further to the existing knowledge of the prevalence of tuberculosis among boys and girls of this age, to serve as an effective and practical method of health education, to secure the correction of defects before children leave school, to find out the kind and amount of tuberculous

infection in a cross section of our child population, and to study the factors influencing its prevalence. A full report of the result of this project, by Drs. Barnard, Amberson, and Loew, appeared in the *American Review of Tuberculosis* for May, 1931.

The consultation chest service is for patients who can afford to pay their physician's fee, but who are unable to meet the cost of X-ray diagnosis and a specialist's examination. The attendance at this clinic increased from 14 in January, 1929, and 88 in January, 1930, to 239 in January, 1931. During 1930, in the second year of its operation, it proved of increasing value, 1,674 patients being examined as compared with only 437 for 1929. The work of this clinic was so successful that the Health Department now operates similar services in five additional stations throughout the City.

Other features of the antituberculosis program of the demonstration consisted in the distribution of about 250,000 pieces of literature during the past three years and the organization of meetings and lectures for nurses, physicians, teachers, social workers, and the general public.

An opportunity for urging on parents healthful living and preventive measures for their children is given by Child Health Day on May first. One feature of this celebration which does much to foster a friendly attitude of the community towards the work of the demonstration is the keeping of open house on this day. Through children in the schools and the contacts of the various clinics, invitations are sent to the parents of the children in the district to come to the Center either in the afternoon or in the evening. During 1930 more than 1,000 of the demonstration neighbors responded, many bringing babies and small children and listening to illustrated lectures on various phases of public health work.

Safety campaigns for school and preschool children were

conducted for four successive years in the twenty-five summer playgrounds and playschools. The recreation consultant visited these centers and distributed printed material. It is estimated that about 2,500 children were reached daily. Literature was also distributed widely to school children and to homes in the neighborhood, and posters were displayed in stores in the district.

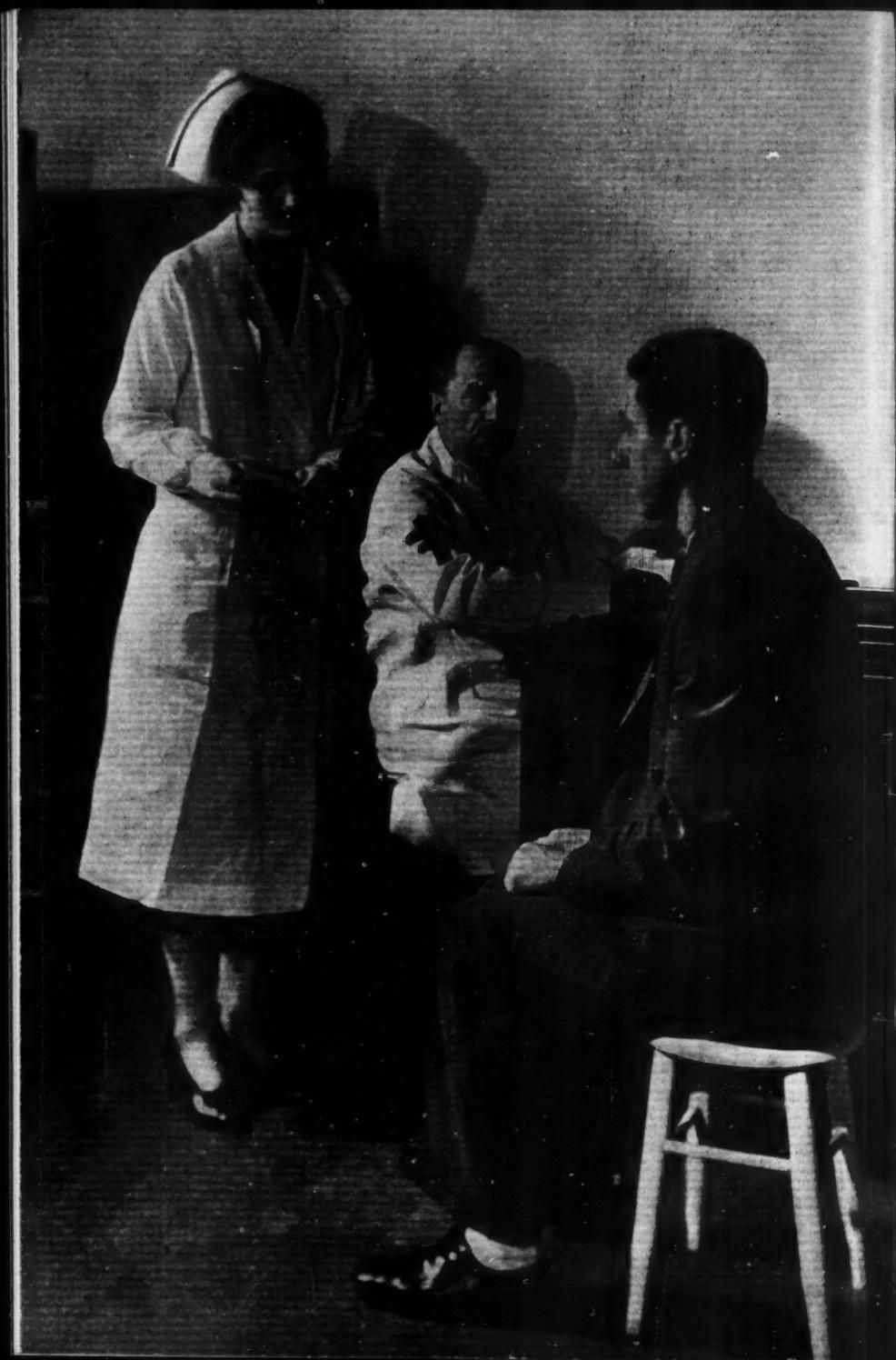
During 1930 safety patrols for children were organized and emphasis was placed on safety programs for the homes. The duties of the patrol included such features as giving traffic cautions and rules, helping smaller children to cross streets, preventing children from climbing on roofs and gates, and helping them to play safely.

The demonstration has a nutrition worker on its staff and has in the past engaged in a certain amount of popular education in this field, but the food health shows and yearly window display contests have been largely under the direction of the New York Association for Improving the Condition of the Poor, which has a branch office in the building of the demonstration.

This same situation applies somewhat to the dental campaigns. The dental clinic at the Health Center is financed jointly by the Association for Improving the Condition of the Poor and the demonstration, and although our school health instruction consultants in the public and parochial schools have done a great deal of work along this line, the work of the dental clinic is under the direction of the Association for Improving the Condition of the Poor, and the educational campaigns have been carried on largely by this organization—chiefly through the distribution of leaflets, fliers and posters made by school children, talks, and plays. A special drive is carried on during summer months to get as many children as possible to have their dental work completed during vacation.

In considering the projects reviewed here the question may arise whether it is best to carry on health education through general public propaganda—meetings, literature, lectures, radio talks, exhibitions—or whether it may not be more worth while to devote the money and effort employed in this work towards securing special training for nurses, teachers, public health and social workers who come in direct contact with those who may need health services. Past experiences suggest that it is important to do both. For measures of prevention and control of preventable disease can be put into practice only as rapidly as public opinion is ready to support them, and general campaigns help educate public opinion. Provided that the direct approach is not neglected and the publicity is not indiscriminate, the popular public health campaigns carried out along the lines described in this article can really be an important, effective, and constructive factor in public health work.





## THE DECREASE IN SIZE OF FAMILIES FROM 1890 TO 1910<sup>1</sup>

by FRANK W. NOTESTEIN



**I**N view of the attention given to our declining birth rate and to its economic and social consequences, surprisingly little is known of an important aspect of that decline, namely the changes in the size of the family. Has the decline in the birth rate come about from a decrease in the proportion of very large families, with a corresponding increase in the proportion of those of medium size, or has it been due to an increase in the proportion of childless and one-child families?

The incidence of changes in the size of the family has important economic and social consequences. A decline in the proportion of very large families, particularly in our "lower" urban social classes, gives better opportunities for the children that are born. It means less crushing poverty, better food, homes, health, and education, and fewer families whose entire consuming power is devoted to the bare necessities of life. At the other extreme, an increase in the proportion of very small families means that an increasingly large number of children are reared without the companionship of brothers and sisters, and the necessity of sharing the attention and affection of their parents with others. Fewer women find their whole time profitably taken up by the duties of the home, and an increasingly large number feel free to seek outside employment. The result is doubtless greater economic independence for women, bringing with it quite possibly a weakening of the home ties on both the husband and wife, and an increase in the proportion of homes broken by separation and divorce.

<sup>1</sup>From the Division of Research, Milbank Memorial Fund.

Lack of data, rather than lack of interest on the part of students, accounts for the scant attention given to the distribution of families by size. The birth registration statistics, from which most of our information concerning the declining fertility of our population has been drawn, only yield data for women who bear children in a given year, and cannot in the nature of the case report the size of completed families. The population censuses of 1890, 1900, and 1910 did collect this information by asking each married woman the number of children she had ever borne. Unfortunately the returns were never tabulated, and the question was dropped from the later censuses. However, the original returns are preserved, and samples of those for 1910 have been tabulated by the research division of the Milbank Memorial Fund.

Data collected from the census returns were limited to those for married women from families in which the husband and wife were living together north of the Mason and Dixon Line in 1910, and in which both the husband and wife were of native-white parentage and only once married. Within this group samples were obtained for each of the broad social classes in thirty-three cities having total populations of between one hundred thousand and five hundred thousand in 1910, and for the wives of farm owners in the rural parts of seventy-four counties adjacent to those cities.<sup>2</sup> Since the urban women were separated into social classes on the basis of the return for the husband's occupation, the classification cannot be more than approximately correct. Nevertheless, it is believed that each of the classes differs from the others with

<sup>2</sup>Data were also obtained for the wives of farm laborers and renters, but, due to the tendency for laborers and renters to become farm owners as age advances, the samples are inadequate for women whose families were complete in 1910. Further details concerning the social classification and the manner in which the data were obtained are given in "Differential Fertility According to Social Class." Sydenstricker, Edgar, and Notestein, Frank W., *Journal of the American Statistical Association*, March, 1930, xxv, News Series 169, pp. 9-32.

TOTAL CHILDREN BORN	PRO- FESSIONAL		BUSINESS		SKILLED		UN- SKILLED		FARM OWNER	
	60-64	40-44	60-64	40-44	60-64	40-44	60-64	40-44	60-64	40-44
Total	354	1,296	762	3,043	444	1,902	137	423	1,709	3,488
0	52	256	73	544	39	331	6	69	153	368
1	47	254	107	653	59	324	17	63	150	354
2	70	317	161	697	74	343	17	68	202	578
3	55	238	127	520	69	308	23	61	253	573
4	50	125	99	295	54	210	18	42	217	462
5	31	52	75	151	44	137	13	29	213	334
6	23	32	52	91	35	99	14	25	135	271
7	15	7	32	44	23	57	8	20	107	175
8	7	10	14	24	19	43	6	17	84	128
9	2	2	13	10	12	36	6	11	66	103
10	2	3	6	9	8	9	5	10	67	67
11				3	6	3		5	30	41
12				3	1	1	2	2	19	19
13					1	1	1	1	6	6
14						1			5	4
15									1	4
16									1	1

Table 1. Number of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.

respect to its standards of living, education, and achievement, and in its general social environment.

The data for women 40 to 44 years of age have been selected to represent families completed about the time the census was taken. Undoubtedly a few children were born to these women after the enumeration was made, but their number would be too small to have an appreciable influence on the distributions. Table 1 gives the number of women in each social class who had borne each specified number of children, and Table 2 the percentage which these groups formed of the total number of married women of the same age and social class. These percentages have been summarized in Figure 1.

In the social classes considered, between 40 and 53 per cent of the married women who completed their families just prior to the enumeration were the mothers of two, three, or

TOTAL CHILDREN BORN	PRO- FESSIONAL		BUSINESS		SKILLED		UN- SKILLED		FARM OWNER	
	60-64	40-44	60-64	40-44	60-64	40-44	60-64	40-44	60-64	40-44
Total	100.1	100.1	99.9	100.0	100.1	100.1	99.9	100.0	100.3	100.0
0	14.7	19.8	9.6	17.9	8.8	17.4	4.4	16.3	9.0	10.6
1	13.3	19.6	14.0	21.5	13.3	17.0	12.4	14.9	8.8	10.1
2	19.8	24.5	21.1	22.9	16.7	18.0	12.4	16.1	11.8	16.6
3	15.5	18.4	16.7	17.1	15.5	16.2	16.8	14.4	14.8	16.4
4	14.1	9.6	13.0	9.7	12.2	11.0	13.1	9.9	12.7	13.2
5	8.8	4.0	9.8	5.0	9.9	7.2	9.5	6.9	12.5	9.6
6	6.5	2.5	6.8	3.0	7.9	5.2	10.2	5.9	7.9	7.8
7	4.2	.5	4.2	1.4	5.2	3.0	5.8	4.7	6.3	5.0
8	2.0	.8	1.8	.8	4.3	2.3	4.4	4.0	4.9	3.7
9	.6	.2	1.7	.3	2.7	1.9	4.4	2.6	3.9	3.0
10	.6	.2	.8	.3	1.8	.5	3.6	2.4	3.9	1.9
11				.1	1.4	.2		1.2	1.8	1.2
12				.4	.0	.2	.1	.5	1.1	.5
13					.0	.2	.7	.2	.4	.2
14							.1	.7	.3	.1
15									.1	.1
16									.1	.0

Table 2. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.

four children. Childless married women and the mothers of one child each constituted between 10 and 22 per cent of the total, and the mothers of 5 or more children between 8 and 33 per cent. It appears from Figure 1 that the proportion of women who had borne no child, one, or from two to four children tends to become smaller with the declining social status of the urban classes. Among the wives of farm owners, no-child and one-child families were less common than in any urban class, but there were more families with two to four children than in the two lowest urban classes. The relatively low proportion of small and medium-sized families found in the lower urban classes and among the wives of farm owners is accounted for by the large proportion of women in these classes who bore five or more children. These largest families were nearly 3.5 times as common among the wives of the unskilled laborers, and nearly 4 times as common

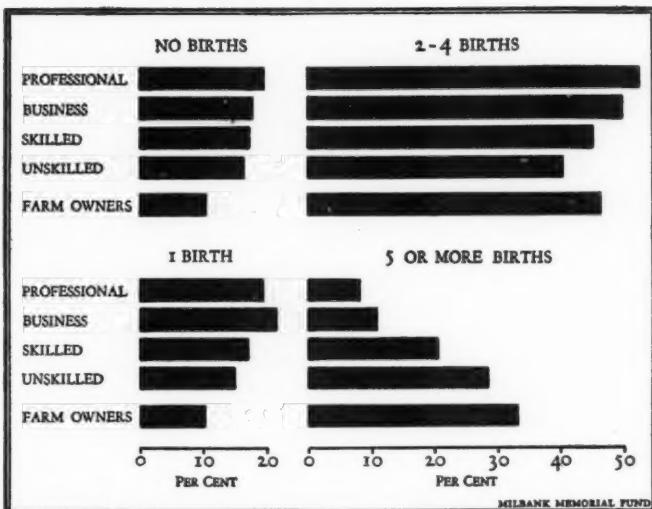


Fig. 1. Per cent of wives aged 40 to 44 in certain social classes who had borne specified numbers of children.

among the wives of farm owners as in the professional class.

Some indication of the trends in the distribution of families by size may be obtained by comparing the families of women 40 to 44 years of age in 1910 with those of women 60 to 64. However, the differences in the distributions may be influenced by other factors than the secular trend since women 60 to 64 years of age had not only completed their families twenty years earlier, but had also lived twenty years longer than the younger group. Attention has already been called to the fact that a few children were probably born to the younger women after the census was taken. None could have been born to those of the older group. Doubtless some women 60 to 64 years old were found in different social classes in 1910 from those they were in twenty years earlier. Some wives of farm owners, for example, were probably wives

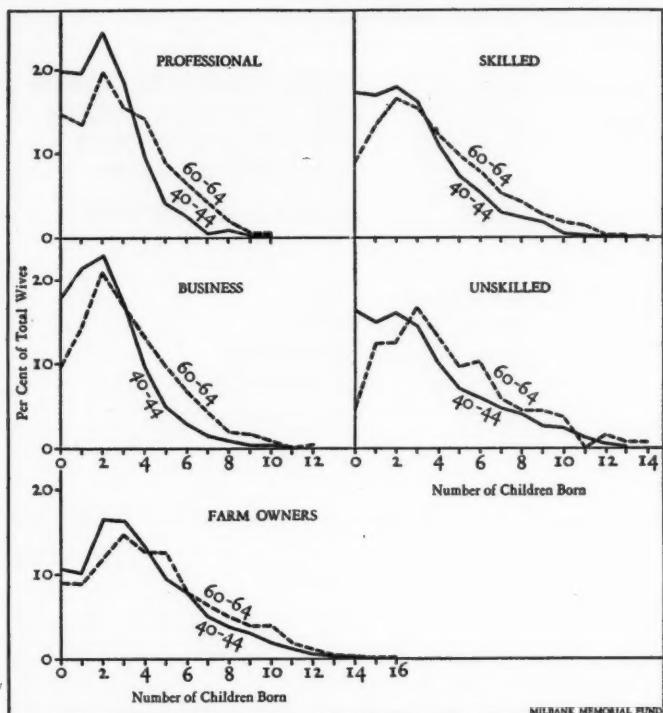


Fig. 2. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne specified numbers of children.

of farm renters when they were forty. It is also possible that there is some association between fertility and the length of life after the end of the childbearing period, but such an association has never been demonstrated.<sup>3</sup> While any of these factors may have some influence on the difference in the dis-

<sup>3</sup>An opinion that there is a direct association between fertility and the length of life after the end of the childbearing period is expressed by Karl Pearson and G. Udny Yule in the *Proceedings of the Royal Society of London*, lxvii, pp. 159 ff. However, the evidence adduced does not seem conclusive, since it rests on the assumption that there was no secular trend in the size of the families whose genealogical records furnish the data for the study.

SOCIAL CLASS	0-1 BIRTHS			5 OR MORE BIRTHS		
	40-44	60-64	Difference	40-44	60-64	Difference
Professional	39.4	28.0	+11.4	8.2	22.7	-14.5
Business	39.4	23.6	+15.8	10.9	25.5	-14.6
Skilled	34.4	22.1	+12.3	20.5	33.6	-13.1
Unskilled	31.2	16.8	+14.4	28.4	40.8	-12.4
Farm owner	20.7	17.8	+2.9	33.1	43.2	-10.1

Table 3. Per cent of wives aged 40 to 44 and 60 to 64 in certain social classes who had borne less than 2 children and 5 or more children.

tributions of the two groups, it seems reasonable to presume, in view of the known decline in the birth rate, that the differences are largely determined by the secular trend in the size of families.

During the twenty years preceding the census of 1910, large families became less frequent in each social class under consideration. (Table 2 and Fig. 2). In the professional, business, and skilled worker classes, two-child families remained the most common size, but there were substantial declines in the proportion of families with four or more children and increases in the proportion of those with less than four children. In the unskilled laborer class the curves suggest that even the three-child family became less common, but in this class the sample of women 60 to 64 is too small to warrant close interpretation. The shift from large to small families is less marked among the wives of farm owners than in the urban classes, but even in this class there was a decline in the proportion of families with five or more children and an increase in the frequency of smaller families.

In the urban social classes the decline in the frequency of large families was virtually matched by corresponding increases in the frequency of very small ones. The mothers of five or more children constituted between 12 and 15 per cent

less of the younger than of the older groups, while childless women and the mothers of one child constituted between 11 and 16 per cent more. (Table 3.) Although the absolute decline in the proportion of large families was about the same in each social class, it amounted to about two-thirds of those families in the professional class and to only about one-third in the unskilled laborer class.

Among the wives of farm owners the frequency of families with five or more children dropped less than in any urban class. There was only a slight increase in the proportion of childless and one-child families, but a marked increase in the proportion of those with two and three children.

These data clearly indicate that the large families were becoming increasingly scarce in both the urban and rural social classes of our native-born population even prior to 1910, and that their place was being taken by childless and one-child families in the cities and by two and three-child families in the country.

## PUBLIC HEALTH NURSING SERVICE IN RURAL FAMILIES<sup>1</sup>

by MARIAN G. RANDALL, R.N.



SINCE the public health nurse is one of the principal agents of a county health department, an analysis of her activities gives an indication of the extent to which the official health services are made available to the families within the county. As an agent of the official organization whose objective is the prevention of disease and promotion of health of all the people living within the given territory, the county public health nurse is assigned manifold duties and responsibilities, and a knowledge of just how completely she can discharge these responsibilities is of vital importance to those who are interested in the trend of public health administration and the evaluation of its results.

An unusual opportunity to obtain information from a group of rural families was afforded by the collaboration of the Milbank Memorial Fund with the United States Public Health Service in the special epidemiological studies being made in a rural area of Cattaraugus County, New York. Continuous observation of nearly all families living in five rural townships and one small incorporated village,<sup>2</sup> renders it possible to collect information about the make-up of the families, their economic status, their health problems, and

<sup>1</sup>From the Division of Research, Milbank Memorial Fund. This is the third of a series of papers presenting the results of studies of public health nursing in different types of official health organizations. Other papers published are:

1. "The Public Health Nurse in a Rural Health Department. An Introductory Report of the Study in Progress in Cattaraugus County." *American Journal of Public Health*, July, 1931, xxi, No. 7, pp. 737-751.

2. "Maternity Service by the Rural Public Health Nurse." *Milbank Memorial Fund Quarterly Bulletin*, July, 1931, ix, No. 3, pp. 103-119.

<sup>2</sup>Townships of Ashford, Mansfield, Ellicottville, Great Valley, and Humphrey; incorporated village of Ellicottville.

the amount of medical and nursing service they receive within a given period. Most studies of public health nursing service are based entirely on the cases registered with the organization. They are of real value in showing the type of work accomplished, but give no data for the large number of families who were not visited by the public health nurses or who did not attend the clinics sponsored by the organization. In this inquiry, a different method was employed, namely: to ascertain the amount and kind of public health nursing supervision received during a twelve-month period by an *unselected* group of families of different sizes, age composition, and economic status. It is believed that this study is unique in this respect, and the information has administrative value in determining criteria for the basis of selection of families for public health nursing service, especially for the educational services that are so important in all health programs.<sup>3</sup>

This report presents a preliminary analysis of the extent to which the Cattaraugus County public health nurses visited in the homes of 1,374 families who lived in the area the entire period from February 1, 1930, to February 1, 1931. The family records obtained by the United States Public Health Service workers were carefully matched with the public health nurses' records of all services rendered.

In preparation for a series of studies of public health nursing in Cattaraugus County, emphasis was put upon the importance of the nurse recording for every visit "why she visited, what she did, and what happened." In other words, factual data about the actual work performed by public health nurses are made available only when comparable information is recorded uniformly for every case and family contacted, and an effort was made to have

<sup>3</sup>The incidence of sickness in these families and the medical and nursing services received will be given later in the United States Public Health Service reports of the complete study.

these data include information regarding the source of the nurses' knowledge of the case, the nature of the problems, dates of visits, services rendered at time of each visit, the results accomplished, and the reason for termination of the case. Aside from any so-called "statistical use" that may be made of it, this is the type of information that is necessary to the nurse, to the supervisor, and to render the best services in the family. Unless there appears on the record information about the composition of the family, its health problems, and what services the nurse rendered, the supervisor cannot use the record as a supervision tool and estimate the nurse's accomplishment, a new nurse cannot "pick up" where another left off, and there is not a record of true generalized nursing service.

Much has been written about the value of records and it is agreed that they form the most essential instrument of sound nursing administration and the only means of insuring continuous care of the patient. But it should also be agreed that unless some record, telling what services the nurse renders, is kept for every person who is visited, or in other words, for every visit, the value of the record is lost to the nurse, to the patients, and to the organizations. A great many organizations do not require any record of the nurses' "single visits," "casual calls," or "inconsequential visits" (whatever they may be called), but a preliminary study in Cattaraugus County, after the nurses were required to keep a record of every visit, showed that 56 per cent of the individuals, visited in a six-month period, were visited once, or received a so-called "single" health education visit.<sup>4</sup>

Under a generalized public health nursing program the nurse obviously should consider the *family as the unit*. When, as in Cattaraugus County, it has been necessary to travel eight or ten miles for many homes visited, it is clear that the best results in terms of family and community health can be accomplished when the nurse can plan a complete family

<sup>4</sup>Randall, Marian G.: "The Public Health Nurse in a Rural Health Department." *American Journal of Public Health*, July, 1931, xxi, No. 7, pp. 737-750.

visit. That is to say, when she can take time to inform herself of the composition of the household, of the family and individual health problems, and then proceed to advise them of the importance of medical supervision, direct them when necessary to the available resources for assistance and care, and exercise her most important function in explaining the value of modern hygiene, interpreting and urging the use of approved measures for prevention of disease, and teaching the rules for health for every member of the family.

As is now well known, the Cattaraugus County Health Department is organized on a county unit plan, and through its Bureau of Public Health Nursing, sponsors a generalized nursing program. During the period of this study the number of staff nurses varied from fourteen to ten, the personnel in the latter part of the year consisting of a director of the bureau, two supervisors, and ten staff nurses, an amount of nursing service far in excess of that provided by the usual county health department. The population of the section allotted to each nurse has varied from 3,500 to 4,500, the latter figure representing the present average potential group for which a nurse carries on all the public health nursing activities of the health department. The section of the County represented in this study had the full-time service of one nurse and about one-half time of another. It is quite common for a county to have one nurse for 10,000 to 15,000 or more people and there are approximately 1,800 counties in the United States without public health nursing service of any kind. In any consideration of this pressing rural health problem, the extent to which the public health nurse can reach the rural families is of extreme importance.

It is a significant fact that of the 1,374 families who lived continuously in the area the entire twelve-month period, 213 families, or 15.5 per cent, received one or more home visits

from the public health nurse.<sup>5</sup> The question quite naturally arises as to the need for nursing service in the remaining 84.5 per cent of the families. Evidently not all of the families can or need be visited, and some selection is necessary. In making such a selection a number of factors must be taken into account, among which, aside from emergencies, are age composition and economic status. There is little doubt that the family with insufficient income and several children has need of all the health educational facilities available, and in connection with case-finding programs for each phase of public health work, these two factors might well form bases for selecting families to receive routine visits at frequent intervals.<sup>6</sup>

Unless one has actually visited the families living on small isolated farms it is hard to realize the meaning of the poverty in many rural areas. In his book "Health on the Farm and in the Village," Dr. C.-E. A. Winslow points out that the average per capita income falls below \$750 in 89 per cent of the rural counties with less than 100,000 population. The economic factor is perhaps the most serious difficulty of the rural health problem. "The farm dweller," he states, "has just as much, perhaps greater, need for health protection as the city dweller. Furthermore, it costs more to furnish the same degree of protection to the rural population on account of the greater distances involved in travel of doctors, nurses, and inspectors, and the necessity for operating clinics and conferences in relatively small units. On the other hand, while we cannot ignore the farm dweller's need for public

<sup>5</sup>It was estimated that 9 per cent of the population of Cattaraugus County received one or more visits from the county public health nurses in a six-month period, and about 14 per cent in a year. Randall, Marian G.: "The Public Health Nurse in a Rural Health Department." *American Journal of Public Health*, July, 1931, xxi, No. 7, pp. 741-742.

<sup>6</sup>Randall, Marian G.: "Maternity Service by the Rural Public Health Nurse." *Milbank Memorial Fund Quarterly Bulletin*, July, 1931, ix, No. 3, pp. 106-107.

health, it is impossible to ignore the correlative fact that he frequently lacks financial capacity to meet his needs."<sup>7</sup> Cattaraugus County with a total population of over 72,000, over 31,000 of whom live in the two cities of Olean and Salamanca, has been rated as having a per capita income figure of \$874. While this places it among the richest 10 per cent of the rural counties of the United States, seven years rather intensive observation has shown that many individual farmers' families in Cattaraugus County are below any reasonable standard of living. The families in our sample were graded according to economic status by the United States Public Health Service investigators, the ratings being based on the general impression formed after the family had been visited several times and keeping in mind relative differences within the group rather than comparison with other types of communities.<sup>8</sup>

The per cent of families of each economic status who received one or more visits from the public health nurse is shown in Table 1. Of those classed as "comfortable" only 6 per cent received any visits from the county nurse during the year, while 28 per cent of the "poor" and 33 per cent of

<sup>7</sup>Winslow, C.-E. A., Dr. P.H.: *Health on the Farm and in the Village*. New York, The Macmillan Company, 1931, p. 21.

<sup>8</sup>The investigators' ratings were used because they had visited in all the families, but for the families visited by the nurses there is a very close correlation of the economic ratings given by the two groups of workers.

Table 1. Families visited by the public health nurse classified according to economic status.

Economic Status	Number of Families	Visited One or More Times by Public Health Nurse	
		Number	Per Cent
All Families	1,364 <sup>1</sup>	211	15.5
Comfortable	206 <sup>2</sup>	18	6.1
Moderate+	531	70	13.2
Moderate-	315	56	17.8
Poor	132	37	28.0
Very poor	90	30	33.3

<sup>1</sup>The economic status was unknown for 10 families, 8 of which had no children and were not visited.

<sup>2</sup>Including 25 families classed as "independent."

the "very poor" families saw the nurse in their homes. Of those whose economic rating varied from "moderate" to "poor," 13 to 17 per cent received public health nursing visits.

Table 2. Per cent of families with children in each economic class.

Economic Status	Number of Families	Families Having One or More Children Under 16 Years of Age	
		Number	Per Cent
All Families	1,364	750	55.0
Comfortable	296	107	36.1
Moderate+	531	284	53.5
Moderate-	315	204	64.8
Poor	132	88	66.7
Very poor	90	67	74.4

In other words, the per cent of families receiving county public health nursing service is in inverse relation to economic well-being.

The needs for public health nursing service are greater in the fam-

ilies in the lower economic levels, not only because of their inability to meet their problems, but because so often the number of children or size of the family increases their health problems. Studies of the birth rate in social classes indicate that for the rural classes of farm owners, farm renters, and farm laborers, there is a definite inverse relation between fertility and social status.<sup>9</sup> In our sample of 1,364 rural families, shown in Table 2, 74 per cent of the "very poor" and 66 per cent of the "poor" families have one or more children under 16 years of age, as contrasted with 53 per cent of the "moderate," and 36 per cent of those families classed as in "comfortable" circumstances.

As an indication of the extent to which the county public health nurse is able to watch and advise upon the health of the rural children, we may consider the per cent of these families having one or more children under 16 years of age

<sup>9</sup>Notestein, Frank W.: "Social Classes and the Birthrate." *Survey Graphic*, April, 1931, xix, No. 1, pp. 38-39.

which were actually visited by the nurse. This is shown in Table 3. Twenty-seven per cent of all the families with children received the services of the County Health Department in the form of one or more visits from the nurse.

Without any deliberate or planned selection of families to be visited on the basis of economic ratings, the needs of the poorer families bring about a sort of natural selection which is shown by the fact (Table 3) that 40 per cent of the poorer families with children were visited by the public health nurse as contrasted with 16 per cent of the families in the group classed as "comfortable." Similar data are not available for any comparable area, but it is undoubtedly true that to reach 40 per cent of the poorer rural families is an exceptionally good record.

It must be realized, however, that 60 per cent of the "poor" and "very poor" families with children, and over 70 per cent of those just above the poor class, did not receive any county public health nursing supervision in a twelve-month period. An example of the varying amount of supervision for a specific problem in families of different economic status is shown in a recent study of prenatal care of rural mothers in this area. "Of those classed as in 'comfortable' circumstances, all had some prenatal care, and only one-sixth fell in the 'insufficient' class. In contrast with this, 62 per cent of the

Table 3. Per cent of families with children who received one or more visits from the public health nurse, by economic status.

Economic Status	Families Having One or More Children		
	Total Families	Visited by Public Health Nurse Number	Per Cent
<i>Total</i>	750	203	27.1
Comfortable	107	17	15.9
Moderate +	284	68	23.9
Moderate -	204	56	27.5
Poor	88	35	39.8
Very poor	67	27	40.3

ECONOMIC STATUS	TOTAL FAMILIES	FAMILIES HAVING CHILDREN OF SPECIFIED AGE GROUPS <sup>1</sup>		
		INFANTS	PRESCHOOL	SCHOOL
NUMBERS				
All Families	537 <sup>2</sup>	73	199	436
Comfortable	90	6	24	64
Moderate +	206	26	52	175
Moderate -	148	22	72	123
Poor	53	11	30	38
Very poor	40	8	21	36
PERCENTAGES				
Total		13.6	37.1	81.2
Comfortable		6.7	26.7	71.1
Moderate +		12.6	25.2	85.0
Moderate -		14.9	48.6	83.1
Poor		20.8	56.6	71.7
Very poor		20.0	52.5	90.0

<sup>1</sup>A given family may have children in one or all age groups.

<sup>2</sup>Excluding 10 families for which economic status was unknown.

Table 4. Families with children of various ages not visited by the public health nurse.

'very poor' mothers had no prenatal care, and 19 per cent had 'insufficient' care."<sup>10</sup>

What are the needs of the families *not* reached by the public health nurse? Some information regarding the composition or make-up of these families is an indication of the specific health problems to which the nurse was not able to give any home supervision. The number of families having children of each age group is shown in Table 4. There were infants in 14 per cent, preschool children in 37 per cent, and school children in 81 per cent of the families with children not visited by the nurse. Of the "poor" and "very poor" families in this group, about 20 per cent had infants, over 50 per cent had preschool children, and 70 to 90 per cent had school

<sup>10</sup>Wiehl, Dorothy G.: "Prenatal Care of Rural Mothers." Milbank Memorial Fund Quarterly Bulletin, July, 1931, ix, No. 3, pp. 99-100.

ECONOMIC STATUS	FAMILIES RECEIVING STATED NUMBER OF VISITS				PER CENT RECEIVING STATED NUMBER OF VISITS			
	One or More	1	2-4	5+	One or More	1	2-4	5+
All Families	211	53	88	70	100.0	25.1	41.7	33.2
Comfortable	18	7	7	4	100.0	38.9	38.9	22.2
Moderate	126	35	53	38	100.0	27.8	42.1	30.2
Poor and very poor	67	11	28	28	100.0	16.4	41.8	41.8

Table 5. Frequency of public health nursing visits during a twelve-month period to families of different economic status.

children.<sup>11</sup> As suggested before, these facts might well be used in planning a case-finding or family-finding program with routine visits at frequent intervals to those families where it is known the greatest number of health problems are likely to exist.

The opportunity for giving health supervision in a family is indicated by the number of times the nurse visits the home.<sup>12</sup> A tabulation of the year's visits (Table 5) to the 211 families in our sample shows that one-third of the families were visited five or more times, two-fifths received between two and four visits, while one-fourth of the families were visited but once. As shown in the same table, the frequency of these visits seems to be associated somewhat with the families' economic status, as 31 per cent of the "comfortable" families were visited but once while only 16 per cent of the "poor" families did not receive a return visit. This association probably is due to the relatively more serious problems met with in the poorer families and not to a deliberate selection of the families themselves.

One of the major problems in a rural public health program

<sup>11</sup>Age groupings are those at the beginning of period studied; infants under one year or born during period; preschool, 1 to 5 years; school, 6 to 16 years.

<sup>12</sup>Visits are here considered as the instances or times the nurse visited a given household regardless of the number of individuals in the household visited.

is the distance and the condition of the road it is necessary to travel to reach the families living in the outlying districts. Although there are many miles of improved paved roads in Cattaraugus County there are also many miles of unimproved roads which are impassable for automobiles at least six months of the year. It is not possible for the nurses to visit the families living on these unimproved roads as often as the families living in the village. Service to the people living in these isolated sections, therefore, is a greater problem.

To illustrate the extent to which the truly rural families received any public health nursing supervision, Table 6 shows the visits by the public health nurse to the families of different economic status in the village of Ellicottville and in the rural section. Although the proportion of families visited in each area was approximately the same, a greater number of the families in the lower economic groups live in the rural sections and the visiting of 63 per cent of the "poor" and "very poor" families outside the village is a real accomplishment.

The fact that only 7 per cent of all the families living in the rural sections received more than one visit during the year is evidence of the effect of two selective factors, namely: distance and roads. Considering only the families visited, however, nearly 50 per cent of these were visited two or more times. In other words, knowledge of specific problems in a given family causes the nurse to assume a certain responsibility and to return to the home in an effort to bring about the desired results, and there is evidence that the location of the family does not deter the nurse if she can possibly get over the road. The accompanying map (Fig. 1) of the five townships gives an idea of the problems of distances and roads and shows the location of all households and of those visited by the public health nurse during the year. In con-

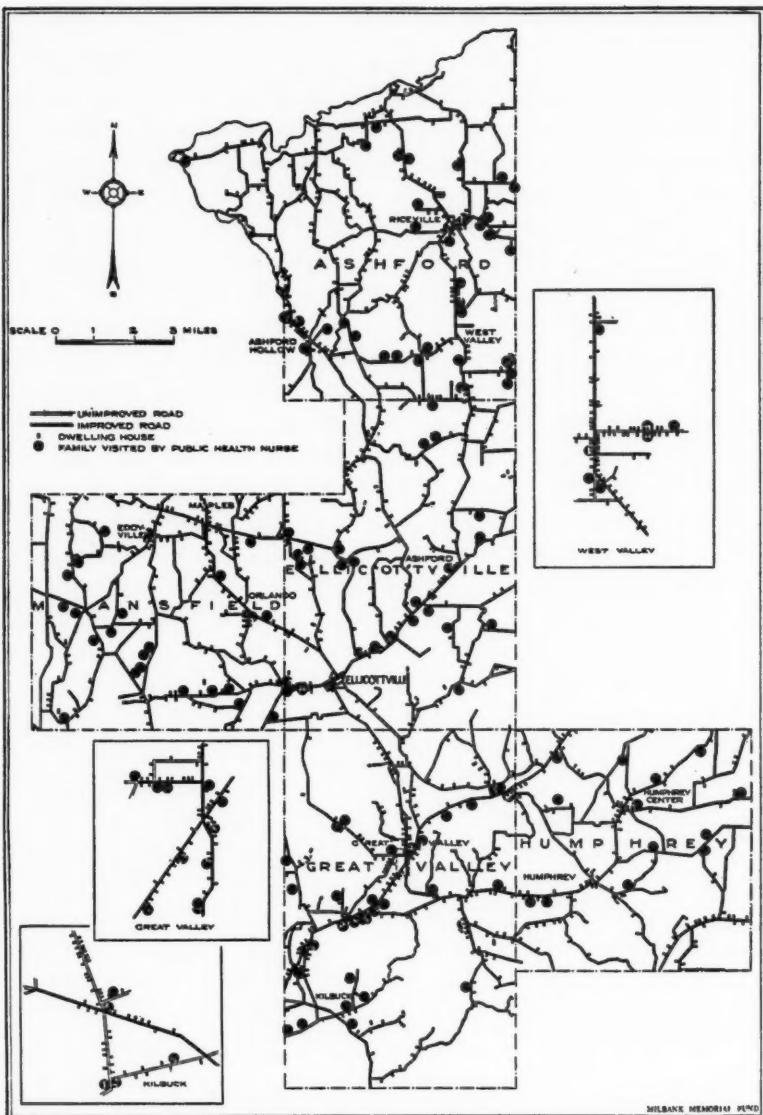


Fig. 1. Five townships in Cattaraugus County, showing the location of all the occupied houses and of those in which the family was visited one or more times by a county public health nurse.

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sidering the services to all the families, however, it will be noted that several of the families living on unimproved roads received one or more visits. This means that the nurse traveled over the road in some instances several times, without visiting other families living on the same road. Because of these problems of distances, roads, and travel time, public health work in rural areas requires even more planning and organization than urban work. As stated before there are few rural sections which have the equivalent in the amount of public health nursing provided in Cattaraugus County. When these facts are presented for a section where organized county health work has been carried on for several years, it is even more striking that one of the most difficult administrative problems in the rural section is to reach the families in the lower economic levels who live in the isolated sections on unimproved roads and usually on small farms.

The success of each special phase of health work carried on by a county health department depends to a considerable extent upon the nurse. The director of the bureau of tuberculosis depends upon the nurse to urge and persuade cases and contacts to have regular physical examinations. The correction of school children's defects depends a great deal upon the nurses' contacts with the parents. The director of the bureau of communicable diseases gives the nurse a list of the preschool children in her district to be checked up for diphtheria toxin-antitoxin. The bureau of maternity, infancy, and child hygiene seeks to have as many mothers and babies as possible attend classes and health conferences and receive the supervision of the public health nurse. The director of the bureau of public health nursing is faced with the problem of integrating all these services, and it is far from an easy task. Aside from the time spent in clinics, health classes, and schools, the percentage distribution of

time spent in actual field visits by all the staff nurses in Cattaraugus County has been computed as follows: maternity 18, infants 19, preschool 15, school 11, tuberculosis 14, communicable disease 6, and "others" including bedside care visits, 17 per cent.<sup>13</sup> This fairly equal distribution of time is made possible by the generalized nursing program and by conscious and unconscious "pressure" being brought to bear from the directors of the various services. A large attendance at the toxin-antitoxin clinic, for example, is greatly to be desired and it is all too easy to visit the homes of the pre-school children for the sole purpose of "working up" that clinic and not to take time to find out about the health problems of the other members of the family. In other words, time distribution alone is not an adequate index of a successful integration of services.

The actual performance of a generalized program is most successful when the family is considered as the unit. Anyone who has attempted to carry out a generalized program in its true sense, knows that the pressure of many special services makes it very difficult to make every home visit a complete family visit. The nurse's record of a visit in a family may show a visit to only one member of that family, but that does not always mean that she is unaware of all the family problems. It may be that in that particular family it is possible to accomplish only one thing at a time and the nurse is forced to make a selection of the most important or most likely-to-be-solved problem and later to attempt the others. On the other hand, if a nurse stands on the door step and merely asks the mother to bring her baby to a health conference next week and there are preschool and school children in the family totally unknown to the nurse, that visit is a

<sup>13</sup>Winslow, C.-E. A., Dr. P. H.: *Health on the Farm and in the Village*. New York, The Macmillan Company, 1931, p. 179.

highly specialized one and does not carry out the idea of a generalized nursing program in making a family visit. Such specialized visits are very costly in a rural area. In our sample of 213 families visited, the nurses' records showed single visits to only one individual and the composition of the family not stated in 37 families or over 17 per cent. In 63 families, or 25 per cent, there were children for which no nursing visit or other information was recorded, 11 infants, 20 preschool children, and 46 school children comprising this group not visited. A notation as to the health of these children or as to reasons why any public health nursing supervision was not necessary, would serve to complete the picture of the family situation.

A road file undoubtedly proves of greater value in organizing a rural program than the street file has been to the urban public health nurse. Knowledge of the age composition and the relative economic status of all the families living on a given road filed in a family folder for each family indicates readily the necessity of visiting the families in the area. Obviously some of the families do not require public health nursing supervision, and others require several visits, but to have readily available information about all the families on a given road is of great assistance in making a day's traveling count for the greatest accomplishment, and what is more important, carry out the objectives of the county health department in more of the truly rural homes.

## NEWS DIGEST

THE critical economic and social conditions prevailing in England, as elsewhere throughout the world, make the forthcoming publication of the third volume of Sir Arthur Newsholme's "International Studies on the Relation between the Private and Official Practice of Medicine" especially timely. The need for caring for the sick poor was obviously never so pressing as today. This volume has to do exclusively with England, Wales, Scotland, and Ireland, and in view of the author's intimate knowledge of public health administration as practised in Great Britain for nearly half a century, the present volume of his series is more detailed than those on European countries that have already appeared. The author also justifies this more detailed presentation of present-day health conditions in England by the statement that Great Britain, more than most other countries, appears to have approached, though

slowly and with many mistakes, to a solution of the difficult problems of adequate treatment and prevention of disease, especially in their bearing on the interrelation between private and public practitioners.

The municipal and county official medical service now existing throughout Great Britain, Sir Arthur points out, more completely meets the need of the necessitous than any other medical facilities. It is unique, he says, in that it constitutes a complete acknowledgement on the part of the people that in the absence of other provision, they, the people, are responsible for the medical care of the sick poor. Potentially, and already in fact, in every parish in the country, it provides, to a certain extent, for the treatment of the sick poor at home or in a hospital.

"As it is now an accepted principle that the necessitous sick must be treated in accordance with the nature of their

illness, and not with skill or care which varies with the degree of ability to pay, there is no reason to doubt that all requiring this succor will receive it to a fuller extent than has hitherto been realized. The increasing adoption of payments for treatment assessed in proportion to means, both in voluntary and in official hospitals, brings this end more quickly within reach."

The discussion of the English National Insurance Medical Service is notable at this time when the whole question of economic safeguards for workers in periods of emergency is of vital and world-wide importance. Some 15,000,000 employed persons in Great Britain, Sir Arthur says, come within the scope of the National Insurance Act, which applies, with a few exceptions, to all persons, men or women, over the age of 16, who are employed in manual labor, and to all other employed persons whose rate of remuneration does not exceed 250 pounds (about \$1,250 a year).

It can be an accepted fact, says the author, that for the majority of insured persons, medical benefit as now administered in Great Britain has been a boon. Every obstacle to early

medical consultation and diagnosis has been removed and, so far as concerns the wage earner in each family, the expense of domiciliary medical attendance no longer exists. These are important gains, the author states, to set against any alleged inferior service under the medical benefit system. "I have found no reason to doubt," he declares, "that the majority of 'panel' doctors give honest and competent service within the prescribed limits; and this conclusion is confirmed by the evidence given before the Royal Commission on Health Insurance."

There is a need for further medical benefits, Sir Arthur believes, since the provisions of the National Insurance Act are incomplete in certain serious respects. Facilities for serious operations, expert medical advice in certain contingencies, X-ray and other aids to diagnosis in obscure cases, adequate nursing services, and similar advantages are now lacking.

Comments on the first two volumes of Dr. Newsholme's "International Studies" continue to appear, supplementing those presented in the July issue of the *Quarterly Bulletin*. Tribute is paid to the thoroughness

and skill with which Sir Arthur has conducted this survey, which, when completed, will, according to the *Medical Press* of London, "form one of the most instructive expositions of the problems which must inevitably present themselves to every civilized nation."

"Though the protean problems of public health, maternity and infant welfare, tuberculosis, venereal disease, alcoholism, the sick poor, sickness and invalidity insurance, and the like remain the same the world over," says the *Medical Officer* of London, "yet the social and political conditions which obtain in different countries vary so widely that no comparison is possible. The great interest in these volumes, especially for those engaged in the practice of preventive medicine, lies in the different methods of approach to these problems and in the relationship which holds between the medical practitioner and the community. There is a tendency in England for the general practitioner to complain of the inroads which state medicine is making upon private practice. Let him take courage, for a careful reading of these chapters will give him cause for self-congratulation on the much

happier circumstances under which he carries on his professional work than those of his continental confrères and on the much more adequate return which he receives for his labours.

"One of the sidelights brought out by these enquiries is the difficult position which arose as the necessary accompaniment of the partition of the Central Powers. Newly-formed countries, such as Czecho-Slovakia, Jugo-Slavia, and Poland inherited systems of national insurance and found themselves heirs to commitments on behalf of the insured sections of their populations, but without the funds which had formed the background of the insurance schemes of the pre-war regime and often without the qualified personnel to meet the demands of their inheritance."

The *Prescriber* of Edinburgh, says of these "International Studies" that "an imposing mass of information is presented on the conditions of practice at present prevailing in various countries, and the reader can ascertain the methods adopted for handling modern medical problems, particularly in the matter of prevention of disease. These studies are likely to be of

the greatest service to those interested in the development of medical questions today. The volumes are well printed and handsomely produced."

The *Literary Supplement* of the *London Times* finds in these volumes interesting evidence of a trend toward a widespread assumption by the state of medical responsibility. "It is interesting to observe," says the reviewer, "the steady movement in nearly all these countries toward the socialization of medicine. The economic troubles of Eastern Europe are reflected in the limitations imposed by necessity on the carrying of interesting and well-designed national schemes to the conclusions obviously hoped for. When they read of the straits to which their professional comrades are reduced in some of the countries here discussed, English doctors may be encouraged to face their own difficulties with thankfulness. . . . The book should be read and digested by all those interested in, or concerned with, the planning of public medical services."



THE districts chosen for the first four community health centers to be constructed in

Greater New York in the next few months as part of the city-wide program announced two years ago by Health Commissioner Shirley W. Wynne are listed in a recent report of the Committee on Neighborhood Health Development, whose investigations were the basis of the health center plan formulated by the Department of Health. These districts are Mott Haven, in the Borough of the Bronx; the Williamsburg-Greenpoint section of the Borough of Brooklyn; Astoria and Long Island City, in the Borough of Queens; and St. George, in the Borough of Richmond. A site has already been purchased in the Mott Haven district, at 349 East 140th Street, and options have been obtained on sites in the other boroughs.

The building consultant employed by the Committee has made a report on the type and cost of buildings necessary for the adequate maintenance of the preventive and clinical health services contemplated. The Mott Haven center will be of stone and brick, of fireproof construction, and will occupy the site of an old continuation school which has been transferred by the Board of Education to the Department of

Health. The cost of the building will be about \$175,000.

The plan of operation which the city health authorities and the Committee on Neighborhood Health Development have adopted includes public health nursing, clinics for the examination of suspected or recognized cases of tuberculosis, laboratory and X-ray tests, prenatal and baby care, venereal disease diagnostic service, school hygiene, conferences for children of preschool age, and general health education. It is expected, too, that the new health center programs will include many of the activities usually undertaken only by private health and welfare agencies, including district nursing, community welfare work, dental, psychiatric, and orthopedic clinics, and health education. The special needs of each of the four districts under consideration were analyzed and the Committee made an exhaustive study of the existing health facilities in the various sections, a procedure which will be followed in determining the location of the additional health centers proposed under the program.

"In planning these future programs," the Committee's report states, "special attention

will be given to the possibility of developing demonstration or training centers in connection with local medical schools, with a view to establishing a close relationship between them and the Department of Health." Such a relationship, the Committee believes, would stimulate the interest of graduate students in public health studies and thus enlarge the ranks of adequately trained medical personnel for the district health services.

In connection with this subject, the Committee made a special study of the Kips Bay-Lenox Hill section, where a new medical center is now in course of construction. Commissioner Wynne has appointed a committee to formulate tentative plans for the establishment of a municipal district health center in the neighborhood, where its activities may be definitely related to the academic instruction carried on in the medical center.

This cooperation with the organized medical profession is further reflected in the invitation extended to the committee of presidents of the five county medical societies operating within Greater New York to consider the City's plan and

program for neighborhood health development, the fundamental purpose of which the Committee has recognized as being the promotion of health through preventive medicine. It will be the policy to limit the free clinical service at the centers to those persons who are unable to pay a private practitioner. The health educational features, however, will be at the disposal of the entire neighborhood. The center will provide the physicians of the district with a central service where X-ray and all kinds of biological analyses and other laboratory tests will be available.

With the cooperation of the private practitioners the Committee on Neighborhood Health Development believes that the cause of health education and preventive medicine will be furthered through the centers to the benefit both of doctors and of the public.

"Every large city should have its district centers at strategic points," the report concludes. "The people of a community would soon protest vehemently if their particular district were not supplied with adequate police and fire protection. There is just as much need in a district for health protection."

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"Offering as it does a rare opportunity for the realization of an ideal, the experience deserves to command the greatest attention. Among other things it has demonstrated the fact that the forces of disease need not, whether for financial or any other reasons, be considered as in any fashion beyond control. Although the eight years which have elapsed constitute too short a period for the effect of a health program to be fully registered, important results are already capable of statistical demonstration. The mortality rates for diphtheria, tuberculo-

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sis, and diseases of infancy have been reduced sharply and suddenly, beyond any reasonable influence of chance. The saving of lives has been computed as equivalent to a reduction in economic loss to the community of \$300,000 a year, nearly double the entire yearly cost of the health program. This program, as described in full by Professor Winslow, should be the object of study by practical sociologists and economists everywhere."

One of the chief aims of the New York Health Demonstrations was to point the way to similar undertakings in other sections of the country, both urban and rural, and to place at the disposal of these communities the benefits of the experience of the New York health programs. An editorial in the *St. Louis Post Dispatch* would seem to indicate that the results of the Cattaraugus County demonstration as revealed in Dr. Winslow's book may fulfill this original aim of stimulating public interest in all parts of the country in bettering health conditions in neglected rural districts. The *Post Dispatch* writer gives interesting data on health conditions in the rural sections of Missouri as compared with

those in New York, and describes the enlarged health program now being launched by the state officials as the result of a grant by Congress to relieve drought sufferers.

"Rural areas," the writer observes, "with their natural advantages of pure air and wholesome foods, once were superior in health as well. Of late decades, however, cities have become active in public health conservation and have reduced their mortality rates, while rural areas have made no such advance. . . . Missouri's rural areas contain only 56 per cent of the State's population. Yet in 1930 these districts were charged with 90 per cent of the total deaths from malaria, 75 per cent of those from typhoid, 80 per cent from dysentery, 79 per cent from influenza, and 82 per cent from whooping cough."

After outlining the New York rural health program and its results as presented by Dr. Winslow, the writer declares that the Cattaraugus County community "through the educational efforts of the health staff, have been convinced that such a public undertaking is as essential there as its counterpart in the cities.

"Missouri has not had funds

available for such an extensive campaign. Where Cattaraugus County has an average per capita income of about \$900 annually, the figure for our rural counties is \$550. Where \$2.20 per capita was spent there, Missouri spends only 29 cents per capita in the 13 counties where its work is carried on. . . . Missouri assists the counties with funds and supervision, and is in turn aided by appropriations from the Federal Government and the Rockefeller Foundation. Each unit consists of a county health officer, one or more nurses, and a sanitary engineer, all full-time workers. Missouri's per capita expenditure is viewed by Dr. Winslow as inadequate, yet the State has made notable progress in its field.

"According to Dr. James Stewart, state health commissioner, the 13 units, serving 628,796 persons, last year immunized 13,242 individuals against typhoid, 24,908 against smallpox, and 5,795 against diphtheria. They treated 8,158 persons for venereal diseases, placed 5,526 under quarantine for contagious ailments, and examined 1,099 for tuberculosis, of whom 403 were found positive. Physical examinations

were given to 50,065 school children, and 31,794 of these were found defective. In 8,101 cases, these defects were corrected. In addition, the health workers gave instructions in prenatal and infant care, acted to control soil pollution, to safeguard water and food supplies, to control insects likely to carry infection, and carried on general educational efforts. Working with the United States Public Health Service, the State Board of Health has accomplished a great deal in fighting trachoma, the leading cause of blindness. More than 5,000 cases have been treated and 200 free clinics have been held in rural Missouri. The results are indicated by the reduction in trachoma sufferers admitted to the \$300-a-year State blind pension, from 119 in 1924 to 49 in 1929.

"An innovation in rural health work just now is being launched in Missouri, in district health work for five groups of nine counties each. These districts are south of the Missouri River, and are using funds voted by Congress for public health programs as an aftermath of the drought. Each district will have a physician, a sanitary engineer, a laboratory

technician, and five nurses. This is an economical means for reaching wide areas which could not be covered otherwise, and is being watched with interest over the country.

"Public health work is in keeping with the medical profession's latest trend, to place emphasis on preventive medicine. Yet the rural health program over the nation is still in the pioneer stage. . . . Missouri's duty is to find the means for purchasing better health for its neglected rural districts."



THE medical services of the Department of Health conducted in the Bellevue-Yorkville Health Center, covering the fields of tuberculosis and pediatrics, reached a larger number of people than in previous years, despite a decreasing population trend in the district, according to the report of the Bellevue-Yorkville Health Demonstration for the year ending December 31, 1930. The tuberculosis service includes diagnostic consultations for private physicians, the Yorkville district chest clinic, and the tuberculosis service for children. The consultation service, which is not restricted to physi-

cians or patients of the district, proved of increasing value, with 1,674 patients examined in 1930 as compared with 437 in 1929. A total of 313 doctors availed themselves of the service, of whom 116 were resident in the district and 197 outside the demonstration area. The average number of new cases per doctor was four. These facilities are designed for those who can afford to pay the fee of a private physician but who are unable to meet the cost of X-ray diagnosis and of a specialist's examination.

The Yorkville district chest clinic, to which the patient applies directly for diagnosis, advice, and placement, showed substantial growth during 1930; new cases totaled 1,121 as compared with 934 in 1929, while total attendance reached 3,443 as compared with 2,017 in 1929. Many patients lived outside the district.

The work in pediatrics during 1930 represented the first full year of clinical activity in all age groups from birth through adolescence. The three baby stations in the area registered 856 new cases in 1930, that located at the Health Center caring for 351 patients, as compared with 286 in 1929. The

preschool clinic received a total of 467 new patients, while the total number of visits was 2,537. This clinic, which until the end of 1930 was the only one of its type conducted under the auspices of the Health Department, received substantial assistance from the demonstration.

The children's clinic, too, is the only one of its kind conducted by the Department of Health. It likewise received aid from the demonstration. It cooperates with the schools in providing medical examinations, refers selected children to special clinics, gives advice on nutrition and general hygiene, provides vaccination and toxinantitoxin immunizations and tuberculin and Wassermann tests, and in general furthers the work of health education and preventive medicine.

Two nursing units of the Department of Health continued to function during 1930 in Bellevue-Yorkville with offices at the Bellevue-Yorkville Health Center. In the Yorkville district the nurses numbered sixteen, four of them provided by the demonstration. In the Bellevue district there were eleven. The former group made 18,990 visits, and the latter 18,704 during the year.

The initiative and perseverance of the nurses were regarded as most important factors in the successful operation of the whole demonstration organization. The introduction of the "generalized" nursing system, whereby each nurse is trained to assist in every service offered by the Department of Health, marks a notable advance over the specialized system formerly in force, since it involves more intensive training in social, mental, nutritional, and recreational problems, and a consequent expansion of the nurse's duties aside from the increased demands arising from the growth of the demonstration's activities. The nurses were helped in carrying on their work by special consultants, who gave them advice and technical training in special fields. A consultant worked with the nurses on social problems such as vocational guidance, unemployment, child placement, workmen's compensation, widows' pensions, fresh air relief, temporary shelter for children, and family maladjustments. The consultant was also active in improving relationships with other agencies in the social service field.

In November, 1930, a complete mental hygiene unit was

established as part of the demonstration, consisting of a part-time psychiatrist, a part-time psychologist, and a full-time psychiatric social worker. This service is largely for consultation, though with present facilities treatment can be given in some cases. Cooperation with the visiting nurses was a large part of the unit's duties, together with the investigation of cases needing psychiatric therapy. It is expected that the service will develop not only as a part of the local health center in serving the patient but in training the nurse for her work in problems of childhood behavior and family relationships.

The demonstration's work during 1930 covered a wider range of activities and reached a larger number of people than in earlier years. In addition to its continuous work of popularizing general health knowledge, intensive educational campaigns in the fields of venereal disease, diphtheria, tuberculosis, and safety, were carried on both independently by the demonstration and in cooperation with other agencies. Measures were used to reach not only residents of the community, but children in the schools, and members of various professions,

including physicians, nurses, social workers, and teachers. In the course of the year more than half a million pieces of printed matter were distributed in various ways. In the diphtheria campaign about 50,000 leaflets and 2,000 posters were given out.

The division of research and records, under the direction of Godias J. Drolet, continued its work of gathering and tabulating statistical information of the daily activities of the demonstration and in cooperating in this field with allied bureaus of the Department of Health. The division also completed a review and summary of the statistical reports of the various services of the demonstration, including those conducted by the Health Department and cooperating organizations both at the Center and in the district, during the three-year period, 1927-1929. The report included discussions of present trends in public health work and the technique for an economical system of reporting the volume of work in such a cooperative health organization as the demonstration represents.

The death rate in the Bellevue-Yorkville district for 1930 was 15.1 per thousand, while in

1929 it was 16.7, according to preliminary figures supplied by the Bureau of Records of the Department of Health. The total number of deaths in the district, which has a population of about 150,000, was 2,289 in 1930 and 2,606 in 1929. The report shows a decrease in the number of infant deaths, which numbered 186 in 1930 and 192 in 1929. There were no deaths from diphtheria in the district during 1930, the last fatality from this disease being recorded in August, 1929.

Heart diseases (558), pneumonias (275), cancer (238), accidents (216), and tuberculosis (150) were as in previous years the leading causes of death. Deaths from cancer were higher by 15 than in 1929, though in other cases the figures were lower.

The tuberculosis death rate in the district averaged 148 for the five-year period 1922-1926. In 1930 it was 99, while in the previous year it was 106 and 141 in 1928. The rate for Manhattan

for the period 1922-1926 was 133, as compared with 126 in 1930, 122 in 1929 and 129 in 1928.

The maternal death rate in 1930 in the Bellevue-Yorkville district was lower than in the preceding year, deaths numbering 7 in 1930 and 18 in 1929. The rate per thousand for live births was 3.5 in 1930 and 7.9 in 1929.

The total registration of communicable diseases in the district in 1930 was 4,032, as against 4,774 in 1929. New cases of venereal diseases, numbering 1,597, formed as usual the largest single group. There were 525 new cases of pulmonary tuberculosis registered, three more than in 1929. The attack rate for the fifteen leading diseases listed in the Bellevue-Yorkville area continued higher than in the City as a whole, being 2,665 per 100,000 in the district as against 1,817 in the entire metropolitan area, and 3,072 in the Borough of Manhattan.